troubles. This system is worked by induced draught. An exhauster (fig. 6), somewhat similar to that used for producing the blast of blast furnaces, is used to suck the ashes along a pipe. This pipe passes under the ash hoppers. The ash passes from the ash hopper into a roll-type crusher (fig. 7), which breaks everything up to a size of about i^-in. cube, and thence it falls into an opening in the main ash pipe. This pipe is about 10 in. diameter, and the air is sucked along it at a speed of about 90 to 100 miles per hour. This draught quickly sucks the ash into the pipe,

Fig. 6.—View showing Exhauster, Motor, and Dusc Catcher with connecting Piping

along it, and up the vertical pipe to a height of even 40 or 50 ft., where it is deposited in the ash receiver (fig. 8). When the ash receiver is nearly full, the exhauster is stopped and a door is opened at the bottom of the ash receiver through which the ash falls into a railway wagon. It is usual for these receivers to be built for a capacity up to about 50 tons of ashes each. This system has entirely eliminated the evil of dust and fumes.

It will be noticed that the ash is never touched by man. The duty of the men is merely to start up the machinery and to guide it. A certain amount of expert attention is however necessary[7] with this

plant (fig. 9).
This' system has, up to the present, proved to be a good method, but
expensive in upkeep and maintenance, for dealing with ashes.

The other simple method of using a standard push-plate conveyoi
inside a trough filled with water, as applied by the Underfeed Stokei